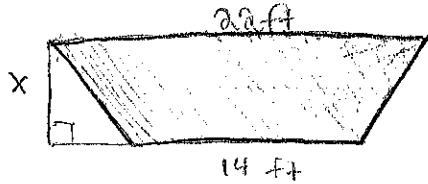
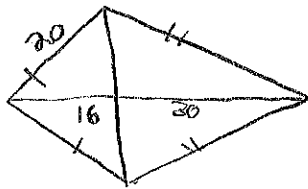


Ch 11 Practice Problems

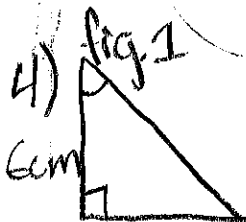
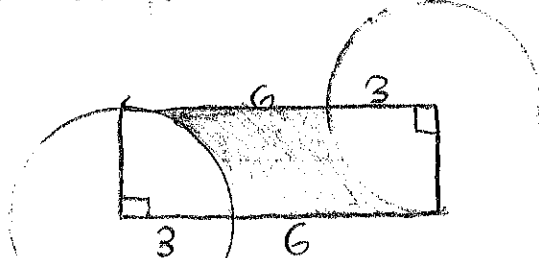
1. Find the value of x
 $\text{Area} = 108 \text{ ft}^2$



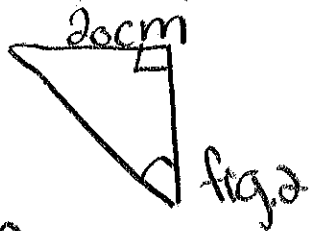
2. Find the area.



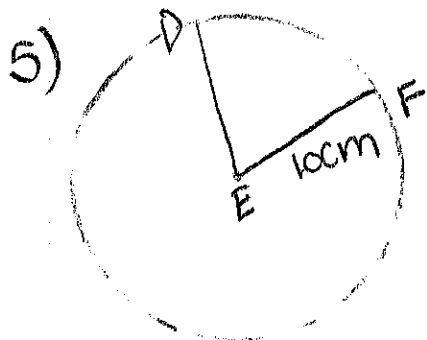
3. Find the perimeter of the shaded region.



$A = 24 \text{ cm}^2$



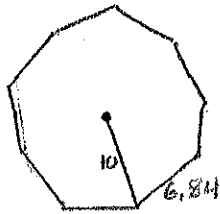
Find the area of the second figure.



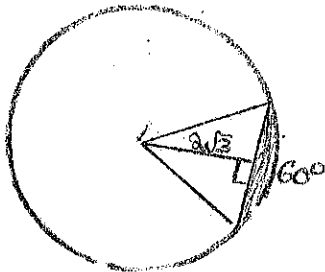
$\widehat{DF} = 26.2^\circ$

Find the $m\angle DEF$?

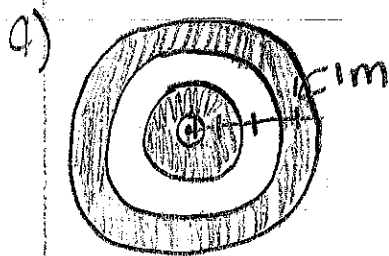
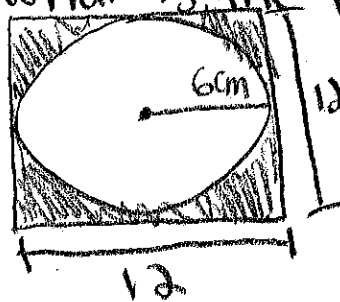
- 6) Find the area of the regular polygon:



- 7) Find the area of the shaded region



- 8) What is the probability that a point in the circle chosen at random lies in the shaded region?



- 10) What is the area of an equilateral triangle with a radius of 12?

ch 11

Answer Key

1. $A = \frac{1}{2} h (b_1 + b_2)$

$$108 = x \frac{1}{2} (22 + 14)$$

$$108 = x \cdot 18$$

$$x = 6$$

2. $A = \frac{1}{2} d_1 \cdot d_2$

$$A = \frac{1}{2} (24)(46)$$

$$A = 552$$

$$a^2 + b^2 = c^2$$

$$16^2 + b^2 = 20^2$$

$$b = 12$$

3. $P = (6+6) + \frac{1}{2} 6\pi$

$$P = 12 + 3\pi$$

$$P = 21.4$$

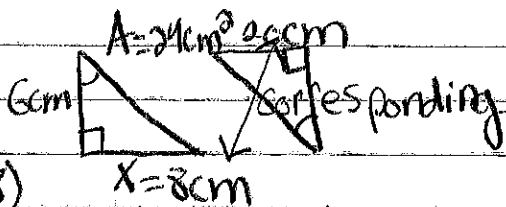
4) fig. 1

$$A = \frac{1}{2} bh$$

$$24 = \frac{1}{2} (6)(x)$$

$$24 = 3x$$

$$x = 8$$



$$x = 8\text{cm}$$

$$SF = \frac{8}{20} = \frac{2}{5}$$

$$A = \frac{2^2}{5^2} = \frac{4}{25}$$

$$\frac{4}{25} = \frac{24}{A}$$

5) Arc length = $\frac{\angle}{360} \cdot 2\pi r$

$$360(20.2) = \left(\frac{x}{360} \cdot 20\pi \right) 360$$

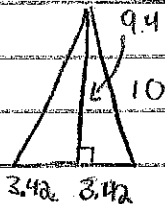
$$\frac{7272}{20\pi} = \frac{x \cdot 20\pi}{20\pi}$$

$$x = 115.7^\circ$$

$$\frac{4A}{25} = 600$$

$$A = 1500\text{cm}^2$$

6)



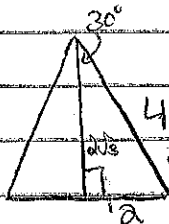
$$3.42^2 + b^2 = 10^2$$

$$b^2 = 88.3 \quad A = \frac{1}{2} ab$$

$$b = 9.4 \quad A = \frac{1}{2} 9.4 (6.849)$$

$$A = 289.3$$

7)



$$60$$

$$360(\pi)(4^2) = 8.4$$

$$8.4 - \frac{1}{2}(4)(2\sqrt{3}) = 1.5$$

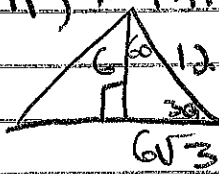
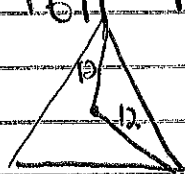
8) $A_{\text{square}} - A_{\text{circle}}$
 A_{square}

$$\frac{12^2 - 6^2 \pi}{12^2} = \frac{144 - 36\pi}{144} = \boxed{.21}$$

9) $A_{\text{circ 4}} - A_{\text{circ 3}} + A_{\text{circ 2}} - A_{\text{circ 1}}$
 $r=4 \quad r=3 \quad r=2 \quad r=1$

$$(16\pi - 9\pi) + (4\pi - \pi) = \boxed{31.42 \text{ m}}$$

10)



$$\begin{array}{r|rr} 30 & 60 & 96 \\ \times & \times 3 & \times 3 \\ \hline 6 & 60 & 12 \end{array}$$

$$A = \frac{1}{2}(18)(12\sqrt{3}) =$$

$$\boxed{187.10^2}$$